

REMARKS

Reconsideration and allowance in view of the foregoing amendments and following remarks are respectfully requested.

Claims 1-11 are now pending, claims 2-11 being newly added.

The objections to the specification have been addressed by the herewith amendments to the specification and drawings. It is respectfully requested that these objections be withdrawn.

Enclosed herewith is a terminal disclaimer, which overcomes the double patenting rejection over Applicant's own US Patent No. 6,324,769. It is respectfully requested that this double patenting rejection be withdrawn. Note that this parent patent is currently in litigation in U.S. District Court, Hartford CT, Civil Case # 302CV1468-PCD.

Claim 1 was rejected under 35 USC 103(a) as being obvious over Ruty in view of Nagasawa et al. This rejection is respectfully traversed.

The Examiner has acknowledged that Ruty does not disclose the blade width in a flattened configuration within the range of 1.1" – 1.5" and a height in the concavo-convex configuration within the range of 0.25" – 0.40". The Examiner then relies on Nagasawa for allegedly teaching these missing dimensions. However, Nagasawa is lacking in its teachings for several reasons.

First, Nagasawa is directed to very different subject matter and specifically teaches away from metal blades. Specifically, Nagasawa is concerned entirely with the manufacture of synthetic resin tape materials that are non-conductive to address alleged concerns of

electric shock associated with metal blades. Nagasawa also addresses concerns of rust and corrosion associated with metal blades. Indeed, Nagasawa discusses at length the disadvantages of metal tape blades and indicates that the invention is directed to a “self-straightening tape measure of other materials than the [sic] steel.” Col. 1, lines 30-31. Indeed, the Title of Nagasawa’s patent is “Self-Straightening Tape Measure Of Synthetic Resin And A Process for Preparing The Same.” It should be noted that independent claim 1 as originally presented in the present application specifically requires a metal tape blade, and that Nagasawa’s entire teachings deal with avoiding the use of metal.

To the extent that Nagasawa discusses “self-straightening,” one must bear in mind the context in which it is being used. Specifically, most non-metal tapes have no ability to extend horizontally to any extent, as they have no structural integrity whatsoever. Nagasawa places some degree of structure into a synthetic resin tape to enable the tape to function more like a conventional retractable tape rule. In sharp contrast, the present invention relates to improvements in metal blade tape rules.

Moreover, Nagasawa does not teach or suggest the particular combination of blade height and width range as originally claimed in the present application. For example, nowhere does Nagasawa even remotely suggest to provide a concavo-convex blade height of between 0.24” – 0.40”, much less in combination with a flattened blade width of between 1.1” – 1.5” as claimed.

In addition, it is respectfully submitted that one skilled in the art to which the subject invention appertains would not have been motivated to combine Nagasawa with Rutty as suggested by the Examiner. In particular, Nagasawa describes a blade fabricated from resin in order to prevent workmen from being injured by electric shock if the blade contacts a live electrical wire (see col. 1, lns. 24-28). Rutty is directed to improving the standout of metal

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blade rules. One would not be motivated to combine Ruty and Nagasawa because the motivation provided by Nagasawa et al. (i.e., preventing electrical conductivity) would be lost if the metal blade of Ruty were simply modified in dimension as suggested by the Examiner. Consequently, there is no motivation, teaching or suggestion sufficient to support the proposed combination. Moreover, despite the Examiner's assertion to the contrary, Nagasawa does not suggest applying its disclosed dimension to anything other than non-metal blades. Accordingly, the combination of Ruty and Nagasawa is improper and withdrawal is respectfully requested.

Nevertheless, while Applicant expressly retains the right to pursue the claims originally filed in this application in a continuation application, in order to expedite allowance of this application in a manner that will capture the more preferred embodiments of the present invention, independent claim 1 has been amended and claims 2-11 have been added.

Particularly, claim 1 has been amended to specify that (1) the metal blade is made of steel (in order to even further distinguish from the non-metallic blade art), (2) the width of the blade in the flattened configuration thereof is between approximately 1.25" – 1.39", and (3) the height of the blade in the concavo-convex configuration thereof is in the range of 0.30" – 0.35".

The prior art of record clearly does not teach or suggest such a combination as claimed. For example, neither Ruty nor Nagasawa teach or suggest to provide a blade in the flattened configuration having a width of approximately 1.25" – 1.39". In addition, neither Ruty nor Nagasawa teach or suggest to provide a blade having a height in the concavo-convex configuration of between 0.30" – 0.35".

For example, Ruty teaches a maximum blade width of 1" (see Column 1, Lines 61 – 68 of Ruty) and mentions only a height of 0.226", both of which clearly fall well outside the

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claimed ranges. In addition, Nagasawa does not relate to a steel "blade" having the dimensions claimed, and only discloses a measure matrix 1 that is formed from a non-woven or woven cloth tape material 11 having a width of 10 to 30 mm. It is noted that Nagasawa does not disclose a finally manufactured example of a tape matrix of any larger than 25 mm in width (see Table 1, Column 7, lines 25-45), which is slightly less than 1.0". Even assuming that Nagasawa could be construed as suggesting that a final tape matrix might be formed as large as 30 mm (about 1.18"), this is still far removed from the claimed range of approximately 1.25" – 1.39".

Moreover, Nagasawa does not teach or suggest the specific height range of 0.30" – 0.35". Rather, Nagasawa is not at all concerned with the curvature height, but rather speaks in terms of the amount or degree of material curvature in prescribing an arc of a perfect circle.

It should be appreciated that the matrix height in Nagasawa may vary to great (and unrealistic) extremes, since the height would be directly dependent upon both the width (while flattened) as well as the prescribed arc variables as disclosed in Nagasawa. Therefore, it is abundantly clear that Nagasawa does not teach or even remotely suggest the particular claimed height range of .030" - .035", much less in combination with the particular width of approximately 1.25" – 1.39". In fact, the vague and general teachings of Nagasawa are quite removed from what would be considered a commercially operable device, even in the field of woven cloth tapes to which its disclosure pertains. Specifically, as can be appreciated from Fig. 1 of Nagasawa, in the instance in which an arc of $\frac{3}{4}$ of a circle is employed, reading the indicia on the concave side of the matrix would be commercially impractical. Because Nagasawa recognizes the difficulty with its design, Nagasawa suggests to compensate for this by providing graduations on the convex surface in addition to the concave surface. (See Col. 4, lines 6-8) This is an unacceptable solution for all practical purposes.

It is respectfully submitted that the Examiner's statement that the advantages of the claimed height and width versus the tradeoffs is merely obvious manufacturing choices takes for granted the precise and sophisticated science that goes into manufacturing of a tape rule blade. For example, each of Rutty and Nagasawa are granted patents directed to various improvements of blade qualities that are characterized and claimed in terms of specific dimensional characteristics of the structure in question, not mere manufacturing choices. Specifically, in Nagasawa, the patentee stated that he developed a self-straightening, non-metal tape matrix by developing (and thus claiming) a particularly shaped curvature that forms an arc that occupies one-third to three-fourths of a circle. Rutty, on the other hand, developed a tape rule blade that has different depths and radii along different longitudinal portions thereof. These past claimed innovations were not merely manufacturing choices, but the result of research and development leading to improved designs over the prior art.

Along the same lines, the present invention has taken a radically different approach than both Nagasawa and Rutty. For example, Nagasawa chose to tackle the problem in its case by developing an arc geometry that described a specified portion of a circle. Nagasawa is not at all concerned with the particular height of that arc, which can vary very significantly based upon the particular width or particular arc portion (i.e., one-third to three-fourths) that is employed. In stark contrast, independent claim 1 recites a very narrow height range of 0.30" – 0.35". Moreover, each of the independent claims in the present application recite a flattened blade width that is well beyond any width dimension contemplated by Nagasawa.

On the other hand, Rutty chose to tackle the problem in its case by developing a tape rule blade that has the height and radius dimensions altered at the intermediate portion of the blade. In the one example given in Rutty, for most of the blade, the arcuate center section is defined by a radius of 0.786 inches and a height of 0.138 inches, while the intermediate portion of the blade has a radius of the arcuate central section of 0.459 inches and a height of

0.226 inches. The height ranges are well outside the ranges presently being claimed. And again, the maximum width dimension discussed in Rutty (of 1.0") is well outside the width presently claimed.

It bears mentioning that the claimed width and height ranges are being claimed in the context of a concavo-convex type blade. While various forms of such a configuration are illustrated in Rutty, such configuration was not the only configuration available to the applicant. This is made evident by other prior art of record, such as Tomuro, U.S. Patent No. 4,352,244, which discloses a rolled cross-sectional shape rather than a concavo-convex one. Thus, it should be borne in mind that the claim limitations set forth in the present claims are also in a particular context and in combination with a concavo-convex cross-section.

None of the prior art of record teaches or suggests the invention as claimed, and the commercial success associated with the Fat Max™ product only bolsters the established non-obviousness of the subject matter claimed.

Claims 2-11 have been added.

Dependent claim 2 recites the more preferred width of the blade in the flattened configuration of approximately 1.25".

Claim 3 recites a flattened blade width of between 1.25" – 1.39" and height dimension in the concavo-convex configuration of 0.25" – 0.40". None of the prior art of record teaches or suggests these limitations in the combination as claimed.

Moreover, claim 3 further recites that the concavo-convex cross-sectional configuration has an arcuate central section having a radius of curvature of approximately 0.30" to approximately 0.60" and two integrally formed end sections on opposite sides of said central section with a different configuration than said central section.

This limitation makes clear that the cross-section configuration being claimed does not form part of a perfect circle. This is unlike the configuration of Nagasawa, for example,

which repeatedly indicates that the tape rule matrix forms part of an arc of a circle. As a result of this constant curvature of the matrix material in Nagasawa, the end sections retain a pronounced curvature that makes viewing of the indicia on the concave side of the blade difficult to see. As indicated previously, Nagasawa attempts to compensate for this by also providing graduations on the convex surface of the matrix.

In contrast, the present invention as claimed in claim 3 provides a specified height dimension and an "out of circle" cross-section to make reading of graduations more easily accomplished.

For the reasons set forth above, it is submitted that claims 1 – 3 are clearly patentable over Rutty in view of Nagasawa.

Dependent claims 4 – 8 set forth additional structural characteristics that more specifically define a preferred configuration of the tape rule blade developed by the inventor. It is submitted that none of the prior art of record teaches or suggests the subject matter of the combination specified by these claims.

Independent claim 9 is the narrowest of the independent claims and recites the more preferred ranges of the present subject matter.

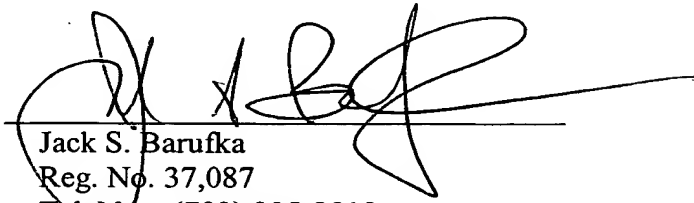
Claims 10 and 11 each further limit the subject matter of claim 9.

All objections and rejections have been addressed, and it is submitted that the present application is now in condition for allowance.

Respectfully submitted,

PILLSBURY WINTHROP LLP

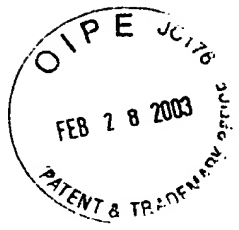
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APPENDIX
MARKED UP VERSION SHOWING CHANGES MADE

1. A retractable rule assembly comprising
a housing assembly;
a reel rotatably mounted in said housing assembly;
an elongated blade formed of a ribbon of metal having one end connected to said reel constructed and arranged with respect to said housing assembly to extend from a position tangential to said reel outwardly through a spaced opening in said housing assembly;
a coil spring formed of a ribbon of metal having a construction and arrangement between said housing assembly and said reel to rotate said reel in said housing assembly in a direction to wind up the elongated blade when extending outwardly of said housing assembly opening in a normal concavo-convex cross-sectional configuration onto said reel in an abutting volute coil formation in a flattened cross-sectional configuration; and
a blade holding assembly constructed and arranged to be manually actuated to hold the blade in any position of extension outwardly of said housing assembly opening and to release the blade from any position in which it is held;
said elongated metal blade being made of steel and having a width in said flattened configuration thereof having a dimension within the range of approximately 1.25" – 1.39" [1.10" – 1.5"], and a height in the concavo-convex configuration thereof having a dimension within the range of [0.25"-0.40"] 0.30" – 0.35".